## **ABSTRACT**

A process for producing lipids containing arachidonic acid comprising culturing a microorganism in which  $\omega 3$  desaturase activity has been decreased or is lacking at a temperature lower than the optimum growth temperature from the start of culturing or after culturing at the optimum growth temperature, said microorganism being obtained by the mutation treatment of a microorganism capable of producing arachidonic acid and belonging to the genus <u>Mortierella</u> and the like; and then recovering lipids containing arachidonic acid from the culture.

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